What is claimed is:

1. An optical level detector for monitoring position of a planar surface in relation to a reference plane, the reference plane having associated therewith an incidence axis and a reference reflection axis, the detector comprising:

a light source for projecting an incidence beam of light along the light source's projection axis and on to the planar surface along the incidence axis; and

a light detector whose viewing axis is coincident with the reference reflection axis, wherein when the planar surface is in same position as the reference plane, the incidence beam of light is reflected by the planar surface into a reflected beam that is coincident with the reference reflection axis and fully registers with the light detector, causing the light detector to generate a first signal value and when the planar surface's position is deviated from the reference plane, the reflected beam does not fully register with the light detector, causing the light detector to generate a second signal value.

2. The optical level detector of claim 1, wherein the light source is a laser.

3. The optical level detector of claim 1, wherein the light source is a light emitting diode.

4. The optical level detector of claim 1, further comprising a collimator for projecting the incidence beam of light on to the planar surface.

5. The optical level detector of claim 1, wherein the light detector is a photocell.

6. The optical level detector of claim 1, wherein the light detector is a photosensitive transistor.

7. The optical level detector of claim 1, wherein the first signal value is a peak output signal of the light detector.

8. The optical level detector of claim 1, wherein the second determined signal value is an output signal of the light detector that is less than the peak output signal value.

9. A reticle stage for a photolithography stepper comprising:

a reticle holding well for holding a reticle; and

an optical level detector of claim 1 positioned near each corner of the reticle holding well, wherein the reference plane defines the reticle's top surface when the reticle is properly level in the reticle holding well and the optical level detectors are used for monitoring whether a reticle placed in the reticle holding well is properly level.

10. An optical level detector for monitoring position of a planar surface in relation to a reference plane, the reference plane having associated therewith an incidence axis and a reference reflection axis, the optical level detector comprising:

a light source for projecting an incidence beam of light along the light source's projection axis and on to the planar surface, wherein the projection axis is coincident with the incidence axis; and

a light detector whose viewing axis is coincident with the reference reflection axis, wherein when the planar surface is in same position as the reference plane, the incidence beam of light is reflected by the planar surface into a reflected beam that is coincident with the reference reflection axis and fully registers with the light detector, causing the light detector to generate a first signal value and when the planar surface's position is deviated from the reference plane, the reflected beam does not fully register with the light detector, causing the light detector to generate a second signal value.

11. The optical level detector of claim 10, wherein the light source is a laser.

12. The optical level detector of claim 10, wherein the light source is a light emitting diode.

13. The optical level detector of claim 10, further comprising a collimator for projecting the incidence beam of light on to the planar surface.

14. The optical level detector of claim 10, wherein the light detector is a photocell.

15. The optical level detector of claim 10, wherein the light detector is a photosensitive transistor.

16. The optical level detector of claim 10, wherein the first signal value is a peak output signal of the light detector.

17. The optical level detector of claim 10, wherein the second determined signal value is an output signal of the light detector that is less than the peak output signal value.

18. A reticle stage for a photolithography stepper comprising:

a reticle holding well for holding a reticle; and

an optical level detector of claim 10 positioned near each corner of the reticle holding well, wherein the reference plane defines the reticle's top surface when the reticle is properly level in the reticle holding well and the optical level detectors are used for monitoring whether a reticle placed in the reticle holding well is properly level.

19. An optical level detector for monitoring position of a planar surface in relation to a reference plane, the reference plane having associated therewith an incidence axis and a reference reflection axis, the optical level detector comprising:

a light source for projecting an incidence beam of light along the light source's projection axis on to the planar surface;

a first reflector for deflecting the incidence beam of light from the light source towards the planar surface along the incidence axis;

a light detector having a viewing axis, wherein when the planar surface is in same position as the reference plane, the incidence beam of light is reflected by the planar surface into a reflected beam that is coincident with the reference reflection axis; and

a second reflector for deflecting the reflected beam toward the light detector along the light detector's viewing axis and fully registers with the light detector, causing the light detector to generate a first signal value and when the planar surface's position is deviated from the reference plane, the reflected beam does not fully register with the light detector, causing the light detector to generate a second output signal value.

20. The optical level detector of claim 19, wherein the light source is a laser.

21. The optical level detector of claim 19, wherein the light source is a light emitting diode.

22. The optical level detector of claim 19, further comprising a collimator for projecting the incidence beam of light on to the planar surface.

23. The optical level detector of claim 19, wherein the light detector is a photocell.

24. The optical level detector of claim 19, wherein the light detector is a photosensitive transistor.

25. The optical level detector of claim 19, wherein the first signal value is a peak output signal of the light detector.

26. The optical level detector of claim 19, wherein the second determined signal value is an output signal of the light detector that is less than the peak output signal value.

27. A system for monitoring positions of a plurality of surface regions on a planar surface in reference to a reference plane, wherein an optical level detector of claim 1 is monitoring the position of each of the plurality of surface regions on the planar surface.

28. A system for monitoring position of a reticle's top surface, the system comprising:

a reticle stage having a reticle holding well for holding the reticle in place;

a reference plane defining the position of the reticle's top surface when the reticle is properly level in the reticle stage, the reference plane having associated therewith an incidence axis and a reference reflection axis;

at least one optical level detector mounted on the reticle stage wherein the at least one optical level detector is positioned over the reticle holding well, each of the at least one optical level detector comprising:

a light source for projecting an incidence beam of light toward the reticle's top surface along the incidence axis, wherein when the reticle's top surface is in same position as the reference plane, the incidence beam of light is reflected by the reticle's top surface into a reflected beam that is coincident with the reference reflection axis; and

a reflector for deflecting the reflected beam toward a light detector along the light detector's viewing axis and fully registers with the light detector, causing the light detector to generate a first signal value and when the planar surface's position is deviated from the reference plane, the reflected beam does not fully register with the light detector, causing the light detector to generate a second output signal value;

wherein the at least one optical level detector is used to monitor position of the reticle's top surface in relation to the reference plane by monitoring the output signal value of the optical level detector's light detector.

29. The system of claim 28, wherein the first signal value is a peak output signal of the light detector.

30. The system of claim 28, wherein the second determined signal value is an output signal of the light detector that is less than the peak output signal value.

31. The system of claim 28, wherein the at least one optical level detector comprises four optical level detectors, one optical level detector mounted near each of the four corners of the reticle holding well.

32. The system of claim 28, wherein the at least one optical level detector is mounted on the reticle stage by a set of connecting hardware that allows the height of the optical level detector to be adjusted relative to the reticle's top surface.

33. The system of claim 32, wherein the set of connecting hardware comprises a vertically actuating guide bearing.

34. The system of claim 33, wherein the vertically actuating guide bearing comprises a slide having wormgear teeth, a bed, and a worm situated in the bed and having a thumb screw portion for turning the worm.

35. A method of monitoring the position of a reticle's top surface in a photolithography stepper tool in relation to a reference plane, the reference plane having associated therewith an incidence axis and a reference reflection axis, the method comprising:

inserting a reticle in a reticle holding well in the photolithography stepper tool's reticle stage;

monitoring at least one optical level detector's output signal that is mounted on the reticle stage, wherein the optical level detector comprising:

a light source for projecting an incidence beam of light along the light source's projection axis and on to the reticle's top surface along the incidence axis; and

a light detector whose viewing axis is coincident with the reference reflection axis, wherein when the reticle's top surface is in same position as the reference plane, the incidence beam of light is reflected by the reticle's top surface into a reflected beam that is coincident with the reference reflection axis and fully registers with the light detector, causing the light detector to generate a first signal value and when the reticle's top surface's position is deviated from the reference plane, the reflected beam does not fully register with the light detector, causing the light detector to generate a second signal value.